

Advancement Handbook for Aviation Machinist's Mate

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PREFACE

The purpose of the Advancement Handbook is to help you focus your preparation for Navywide advancement-in-rating examinations. The bibliographies (BIBs) together with this handbook form a comprehensive examination study package. Since this handbook provides skill and knowledge components for each paygrade of the Aviation Machinist's Mate (AD) rating, it helps you concentrate your study on those areas that may be tested. This feature will help you get the most out of your study time.

Each page in Parts 1 through 4 of this Advancement Handbook presents general skill areas, specific skill areas, the knowledge factors associated with each skill area, the pertinent references that address each skill, and the subject areas that may be covered on the examination. The skill statements describe the skills you are expected to perform for each paygrade. The skill statements are cumulative; that is, you are responsible for the skills for the paygrade you are competing for, your present paygrade, and all paygrades below.

Although this handbook is very comprehensive, it cannot cover all the tasks performed in the rating. As a result, the advancement examinations may contain questions more detailed than described in the “*Exam Expectations*” section of the skill areas.

Remember that advancement competition is keen, so your keys to advancement include not only comprehensive advancement examination study but also sustained superior performance.

Prepared by
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Part 1

Advancement Handbook for AD3

Advancement Handbook for AD3

General AD <i>Skill Area</i>	General Power Plant Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain power plant lubrication systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identification of the types of engine oil systems • Engine oil system component locations • Engine oil system operation • Procedures for servicing an engine oil system • Procedures for draining and flushing an engine oil system • Engine oil system oil sampling and oil sample submission requirements • Engine oil system filter inspection and replacement requirements • Procedures for inspecting and cleaning engine oil system magnetic plugs • Procedures for logging engine oil consumption
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapters 4 and 5 (NAVEDTRA 12300) • Joint Oil Analysis Program Manual, Chapters 1 through 4 (NAVAIR 17-15-50.1) • Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 4 (OPNAVINST 4790.2)

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about engine oil system operation and maintenance. Questions will be of a general nature or specific to a type of engine. You will be questioned on the types of systems, on component functions, and on operation. You will also be questioned on the procedures for replacing components, on the location of components as well as on the procedures for obtaining and submitting oil samples and on the procedures for logging oil consumption.</p>
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General AD <i>Skill Area</i>	General Power Plant Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain power plant bleed air and anti-ice systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Bleed air system operation • Procedures for cleaning and inspecting bleed air system components • Bleed air system purging requirements • Procedures for replacing bleed air system components • Bleed air system component replacement requirements • Anti-ice system component locations • Anti-ice system operation • Procedures for cleaning and inspecting anti-ice systems
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 6 (NAVEDTRA 12300) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 3 (NAVAIR 01-1A-509)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about bleed air systems and anti-ice system operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on the operation and locations of components, on the procedures to clean and inspect components, and on the procedures for replacing components.

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General AD <i>Skill Area</i>	General Power Plant Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain power plant intake systems and power plant exhaust systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identification of the types of engine intake systems • Engine intake system operation • Inspection requirements for engine intake systems for leaks, wear, and damage • Engine intake system component cleaning and lubrication requirements • Procedures for inspecting components of engine intake systems • Engine intake system component replacement requirements • Identification of the types of engine exhaust systems • Engine exhaust system operation • Engine exhaust system component cleaning and lubrication requirements • Inspection requirements for the engine exhaust systems for leaks, wear, and damage • Procedures for replacing engine exhaust system components
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapters 1, 6, 7, 9, and 10 (NAVEDTRA 12300) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 3 (NAVAIR 01-1A-509)

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about power plant intake system and exhaust system operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on types of systems and component functions as well as on procedures for cleaning, inspecting, lubricating, and replacing components.</p>
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General AD <i>Skill Area</i>	General Power Plant Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain power plant reduction gearboxes and power plant accessory gearboxes.
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Engine reduction gearbox operation • Procedures for inspecting engine reduction gearboxes for leaks, wear, and damage • Engine reduction gearbox cleaning and lubrication requirements • The inspection of components of engine reduction gearboxes • Procedures for replacing engine reduction gearboxes • Engine accessory gearbox operation • Inspection requirements for the components of engine accessory gearboxes • Cleaning and lubrication requirements for engine accessory gearboxes • Procedures for replacing components of engine accessory gearboxes • Procedures for replacing engine accessory gearboxes
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapters 1, 7, and 8 (NAVEDTRA 12300) • Applicable maintenance instruction manuals (MIMs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about engine reduction and accessory gearbox system operation, maintenance, and replacement. Questions will be of a general nature or specific to a type of engine. You will be questioned on component replacement, cleaning, and inspection.

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General AD <i>Skill Area</i>	Engine Component Inspection and Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain power plant intake, compressor, and turbine blades
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Inspection requirements for the inspection of engine intake, compressor, and turbine blades for wear and damage • Procedures for blending of nicks and scratches in engine blades (intake, compressor, turbine) • Inspection requirements for the inspection of engine stator vanes for wear and damage • Procedures for blending of nicks and scratches in engine stator vanes • Procedures for boroscoping engine compressor stages • Procedures for removing compressor turbine rotor assemblies • Cleaning and lubrication requirements for components of compressor turbine rotor assemblies • Inspection requirements for the inspection of components of compressor turbine rotor assembly for wear and damage • Procedures for installing compressor turbine rotor assemblies • Procedures for inspecting turbine blade axial clearances • Procedures for inspecting turbine blade radial clearances

<p><i>References</i> you should study to gain the knowledge you need to perform this skill:</p>	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapters 1, 7, 9, and 10 (NAVEDTRA 12300) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 3 and 4 (NAVAIR 01-1A-509) • Applicable maintenance instruction manuals (MIMs)
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about intake, compressor, turbine blades, and stator vanes. Questions will be of a general nature or specific to a type of equipment. You will be questioned on procedures for inspecting, blending, boroscoping, and cleaning. In addition you will be asked questions on replacement of components.</p>

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General AD <i>Skill Area</i>	Engine Component Inspection and Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain power plant fuel system components
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Engine fuel nozzle operation • Identification of types of engine fuel nozzles • Inspection requirements for the inspection of engine fuel nozzles for wear and damage • Procedures for performing engine fuel nozzle checks • Engine fuel nozzle replacement requirements • Identification of types of engine fuel controls • Engine fuel control operation • Procedures for performing functional checks on engine fuel controls • Troubleshooting concepts for components of engine fuel control systems • Procedures for cleaning components of engine fuel control systems • Inspection requirements for the inspection of components of engine fuel control systems for leaks, wear, and damage • Procedures for replacing components of engine fuel control systems • Procedures for rigging and adjusting components of engine fuel control systems • Identification of types of engine fuel pumps • Engine fuel pump operation • Procedures for performing functional checks on engine fuel pumps • Troubleshooting concepts for components of engine fuel pumps • Procedures for cleaning components of engine fuel pumps

	<ul style="list-style-type: none"> • Inspection requirements for the inspection of components of engine fuel pumps for leaks, wear, and damage • Procedures for adjusting components of engine fuel pumps • Procedures for replacing components of engine fuel pumps • Troubleshooting concepts for engine fuel flow transmitters • Procedures for replacing engine fuel flow transmitters
<p><i>References</i> you should study to gain the knowledge you need to perform this skill:</p>	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapters 4, 5, 7, 8, 9, and 10 (NAVEDTRA 12300) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 3 (NAVAIR 01-1A-509) • Applicable maintenance instruction manuals (MIMs)
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about engine fuel component system operation and maintenance. Questions will be of a general nature or specific to a type of engine. You will be questioned on types of fuel nozzles, on fuel controls, and on fuel pump systems. You also will be questioned on component functions and operation. In addition, you will be questioned on procedures for replacing, cleaning, inspecting, rigging, adjusting, and troubleshooting engine fuel systems.</p>

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General AD <i>Skill Area</i>	Engine Component Inspection and Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain power plant afterburner system
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Engine afterburner system operation • Procedures for performing functional checks on engine afterburner systems • Cleaning requirements for components of engine afterburner systems • Inspection requirements for the inspection of components of engine afterburner systems for wear and damage • Procedures for replacing engine afterburner components and engine afterburners
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 1 (NAVEDTRA 12300) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 3 (NAVAIR 01-1A-509) • Applicable maintenance instruction manuals (MIMs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about engine afterburners system operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on afterburner systems and on component functions and operation. You also will be questioned on procedures for functional checks of afterburner systems as well as on procedures for cleaning and inspecting of afterburner components. In addition, you will be questioned on replacement of afterburner components and afterburners.

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General AD <i>Skill Area</i>	Engine Component Inspection and Maintenance
<i>A skill</i> you are expected to perform from the General Skill Area above:	Maintain engine compressor and engine combustion sections
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identification of types of engine compressors • Inspection requirements for the inspection of engine compressor cases for wear and damage • Procedures for repairing engine compressor cases • Engine compressor case replacement requirements • Identification of the types of engine combustion sections • Troubleshooting concepts for engine combustion sections • Procedures for performing engine hot section inspections • Procedures for replacing engine combustion cans
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapters 1, 7, 8, and 10 (NAVEDTRA 12300) • Applicable maintenance instruction manuals (MIMs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about engine compressor and combustion system operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on types of compressors and combustion systems, on component functions and operation, on procedures for repairing or replacing engine compressor cases, on procedures for performing engine hot section inspections, and on replacing engine combustion cans as well as on concepts for troubleshooting combustion sections.

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General AD <i>Skill Area</i>	Electro/Mechanical Maintenance
<i>A skill</i> you are expected to perform from the General Skill Area above:	Maintain engine starting systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identification of the types of engine starter systems • Engine starter system operation • Procedures for performing functional checks on engine starter systems • Troubleshooting concepts for engine starter systems • Inspection requirements for the inspection of engine starter systems for wear and damage • Troubleshooting concepts for components of engine starter systems • Cleaning and inspection requirements for engine starter system components • Procedures for replacing engine starter system components
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 6 (NAVEDTRA 12300) • Applicable maintenance instruction manuals (MIMs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about engine starting system operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on types of starters, on component functions and operation, and on procedures for troubleshooting, inspecting, replacing, and cleaning components.

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General AD <i>Skill Area</i>	Electro/Mechanical Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain engine ignition systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identification of the types of engine ignition systems • Engine ignition system operation • Procedures for performing functional checks on engine ignition systems • Inspection requirements for the inspection of engine ignition systems for wear and damage • Troubleshooting concepts for engine ignition systems • Procedures for cleaning components of engine ignition systems • Inspection requirements for the inspection of components of engine ignition systems • Procedures for replacing components of engine ignition systems • Troubleshooting concepts for components of engine ignition systems
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapters 6 and 9 (NAVEDTRA 12300) • Applicable maintenance instruction manuals (MIMs)

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about engine ignition system operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on types of ignition systems, on component functions and operation, on procedures for troubleshooting and replacing components, and on procedures for inspecting and cleaning ignition components.</p>
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General AD <i>Skill Area</i>	Engine Linkage Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain engine power control, emergency shutdown control, and throttle linkage systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identification of the types of engine power control systems • Engine power control operation • Procedures for performing functional checks on engine power control systems • Troubleshooting concepts for components of engine power control systems • Cleaning and lubricating requirements for components of engine power control systems • Procedures for inspecting components of engine power control systems for wear and damage • Procedures for replacing components of engine power control systems • Procedures for rigging and adjusting components of engine power control systems • Identification of the types of engine emergency shutdown control systems • Engine emergency shutdown control system operation • Performing functional checks on engine emergency shutdown control systems • Troubleshooting concepts for components of emergency shutdown control systems • Procedures for cleaning and lubricating components of engine emergency shutdown control systems • Procedures for inspecting components of engine emergency shutdown control systems • Procedures for replacing components of engine emergency shutdown control systems • Procedures for rigging and adjusting components of engine emergency shutdown systems

	<ul style="list-style-type: none"> • Procedures for rigging and adjusting components of throttle quadrant assemblies • Requirements for performing functional checks on engine throttle linkages • Troubleshooting concepts for engine throttle linkages • Procedures for cleaning and lubricating engine throttle linkages • Inspection requirements for the inspection of engine throttle linkages for wear and damage • Procedures for replacing components of engine throttle linkage assemblies • Procedures for rigging and adjusting engine throttle linkages
<p><i>References</i> you should study to gain the knowledge you need to perform this skill:</p>	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapters 7 and 8 (NAVEDTRA 12300) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 3 (NAVAIR 01-1A-509) • Applicable maintenance instruction manuals (MIMs)
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about engine power control, emergency shutdown, and throttle quadrant system operation and maintenance. These questions may be of a general nature or specific to a type of equipment. You will be questioned on types of systems and on component functions as well as on procedures for replacing, inspecting, troubleshooting, cleaning, lubricating, rigging, and adjusting control and linkage systems.</p>

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General AD <i>Skill Area</i>	Auxiliary Power
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain auxiliary power units (APUs)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • APU system operation • Procedures for performing functional checks on APU systems • Troubleshooting concepts for components of APU systems • Cleaning and lubricating requirements for components of APU systems • Inspection requirements for the inspection of components of APU systems for leaks, wear, and damage • Procedures for replacing components of APU systems • Procedures for servicing APU systems • Rigging and adjusting requirements for components of APU systems • Procedures for APU turns
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 6 (NAVEDTRA 12300) • Naval Aviation Maintenance Program (NAMP) Volume I, Chapter 10 (OPNAVINST 4790.2) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 3 (NAVAIR 01-1A-509) • Applicable maintenance instruction manuals (MIMs)

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about APU system operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on APU system component functions as well as on procedures for troubleshooting, inspecting replacing, servicing, cleaning, lubricating, rigging, and adjusting APUs. You also will be questioned on procedures for APU turns.</p>
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General Ad <i>Skill Area</i>	Helicopter Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain helicopter rotary head assemblies and helicopter transmission systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identification of the types of helicopter rotary head assemblies • Helicopter rotary head assembly operation • Procedures for cleaning and lubricating components of rotary head assemblies • Inspection requirements for the inspection of components of rotary head assemblies for leaks, wear, and damage • Replacement procedures for components of rotary head assemblies • Identification of the types of helicopter transmission systems • Helicopter transmission system operation • Troubleshooting concepts for components of helicopter transmission systems • Procedures for cleaning and lubricating components of helicopter transmission systems • Inspection requirements for the inspection of components of helicopter transmission systems for leaks, wear, and damage • Replacement procedures for components of helicopter transmission systems • Procedures for servicing helicopter transmission oil systems

<p><i>References</i> you should study to gain the knowledge you need to perform this skill:</p>	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 7 (NAVEDTRA 12300) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 3 (NAVAIR 01-1A-509) • Applicable maintenance instruction manuals (MIMs)
<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about helicopter rotary head assembly and helicopter transmission operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on types of rotary head and transmission systems, on component functions and operation, and on procedures for replacing, inspecting, cleaning, troubleshooting, and servicing rotary head and transmission systems.</p>

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General AD <i>Skill Area</i>	Helicopter Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain helicopter rotary blade systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identification of the types of rotor blade assemblies • Rotor blade assembly operation • Cleaning and lubricating requirements for components of rotary blade assemblies • Procedures for replacing rotor blade assemblies • Procedures for balancing rotor blades • Procedures for trimming rotor blades • Identification of the types of helicopter blade tracking systems • Helicopter blade tracking system operation • Inspection requirements for the inspection of components of helicopter blade tracking systems for wear and damage • Procedures for replacing components of helicopter blade tracking systems
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 7 (NAVEDTRA 12300) • Applicable maintenance instruction manuals (MIMs)

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about helicopter rotary blade system operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on types of blades and on component functions and operation. You will also be questioned on procedures for replacing, cleaning, balancing, trimming, and tracking blades as well as on procedures for inspecting blade tracking system components.</p>
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General AD <i>Skill Area</i>	Helicopter Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain helicopter flight control systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Helicopter flight control system operation • Cleaning and lubricating requirements for components of helicopter flight control systems • Inspection requirements for the inspection of components of helicopter flight control systems for leaks, wear, and damage • Procedures for replacing components of helicopter flight control systems
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 7 (NAVEDTRA 12300) • Applicable maintenance instruction manuals (MIMs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the helicopter flight control system operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on operation of a helicopter flight control system as well as on cleaning, lubricating, inspecting, and replacing components of a helicopter flight control system.

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General AD <i>Skill Area</i>	Aviation Support
<i>A skill</i> you are expected to perform from the General Skill Area above:	Maintain support equipment (SE)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identification of types of SE systems • SE system operation • SE requirements for removing and installing engines in aircraft • Procedures for performing pre-operational checks on SE • Inspection requirements for the inspection of SE for leaks, wear, and damage • Procedures for servicing SE
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 3 (NAVEDTRA 12300) • Naval Aviation Maintenance Program (NAMP) Volume I, Chapters 10, 12, 14, 15, and 16 (OPNAVINST 4790.2) • Aviation Maintenance Ratings Fundamentals, Chapters 4 and 5 (NAVEDTRA 12010) • Applicable maintenance instruction manuals (MIMs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about support equipment system operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on types, functions and operation of SE, on procedures for servicing and inspecting SE, and on pre-operational checks for SE.

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General AD <i>Skill Area</i>	Aviation Support
A <i>skill</i> you are expected to perform from the General Skill Area above:	Conduct aircraft fueling and defueling operations
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identification of types of external fuel tanks • External fuel tank operation • Procedures for removing and installing external fuel tanks • Procedures for performing and directing aircraft fueling operations • Procedures for performing and directing aircraft defueling operations
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 4 (NAVEDTRA 12300) • Aviation Maintenance Ratings Fundamentals, Chapter 5 (NAVEDTRA 12010) • Applicable maintenance instruction manuals (MIMs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about aircraft fuel system operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on types of storage tanks, on procedures for fueling and defueling aircraft, and on procedures for installing and removing external storage tanks.

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General AD <i>Skill Area</i>	Corrosion Control and Material Preservation
<i>A skill</i> you are expected to perform from the General Skill Area above:	Maintain inspection schedule
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Inspection requirements for the following: <ul style="list-style-type: none"> - Special inspections - Phase inspections - Conditional inspections - Daily inspections - Turnaround inspections
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Maintenance Ratings Fundamentals, Chapter 5 (NAVEDTRA 12010) • Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 12 (OPNAVINST 4790.2) • Applicable maintenance instruction manuals (MIMs) • Applicable maintenance requirements cards (MRCs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about aircraft and engine inspection procedures, intervals, and logbook requirements for each type of inspection. Questions will be of a general nature or specific to a type of equipment.

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General AD <i>Skill Area</i>	Corrosion Control and Material Preservation
A <i>skill</i> you are expected to perform from the General Skill Area above:	Preserve and depreserve aircraft fuel cells and engines
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identification of types of aircraft fuel cell preservation and depreservation • Aircraft fuel cell preservation requirements • Procedures for depreserving aircraft fuel cells • Identification of types of aircraft engine preservation and depreservation • Procedures for removing corrosion from engines and engine compartments • Procedures for cleaning aircraft engines • Aircraft engine preservation requirements • Procedures for depreserving aircraft engines • Procedures for cleaning aircraft surfaces and structures • Preservation tag requirements
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Maintenance Ratings Fundamentals, Chapter 4 (NAVEDTRA 12010) • Aviation Machinist's Mate 3&2, Chapter 10 (NAVEDTRA 12300) • Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 3, 4, and 9 (NAVAIR 01-1A-509) • Preservation of Naval Aircraft, Chapters 1, 2, 3, and 4 (NAVAIR 15-01-500) • Applicable maintenance instruction manuals (MIMs) • Naval Aviation Maintenance Program (NAMP), Volume I, Chapters 10, 12, 13, and 15 (OPNAVINST 4790.2) • Applicable maintenance requirements cards (MRCs)

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about aircraft fuel and engine preservation and depreservation maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on types of preservation and depreservation of fuel cells and engines, on cleaning procedures and corrosion removal on engines and components, and on preservation tag preparation.</p>
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General AD <i>Skill Area</i>	Hazardous Material Control and Handling
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain hazardous materials (HAZMAT)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Identification of the types of HAZMAT • Procedures for reviewing a material safety data sheet (MSDS) • Procedures for updating an MSDS • MSDS posting requirements • Procedures for tagging and labeling HAZMAT • Procedures for recycling HAZMAT • Requirements for cleaning up fuel and oil spills • Procedures for disposing of used chemicals • Procedures for disposing of used absorbents (speedy dry, rags, pads, and so forth)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Preservation of Naval Aircraft, Chapter 1 (NAVAIR 15-01-500) • Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 11 (OPNAVINST 4790.2) • Naval Aviation Maintenance Program (NAMP), Volume V, Chapters 10 and 20 (OPNAVINST 4790.2) • Navy Occupational Safety and Health (NAVOSH), Chapter 3 (OPNAVINST 5100.19) • Applicable maintenance instruction manuals (MIMs) • Local hazardous material (HAZMAT) instructions

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about hazardous material handling and procedures. Questions will be of a general nature or specific to a type of HAZMAT. You will be questioned on types of HAZMAT. In addition you will be questioned on proper labeling of HAZMAT and on procedures for cleaning up, disposing, and recycling of HAZMAT.</p>
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Advancement Handbook for AD3

General AD <i>Skill Area</i>	Maintenance Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Review aircraft discrepancy books (ADBs)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for reviewing an ADB
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 5 (OPNAVINST 4790.2)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on the ADB. Questions will be of a general nature or specific to a type of maintenance action. You will be questioned on procedures for reviewing the ADB.

Advancement Handbook for AD3

General AD <i>Skill Area</i>	Maintenance Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain tool control
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for reviewing tool inventories • Procedures for updating tool inventories • Procedures for engraving identification marks on tools • Procedures for inspecting tool containers for missing, damaged, or broken tools • Procedures for searching for missing tools • Information needed for preparing broken and missing tool reports • Requirements for reviewing broken and missing tool reports
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Maintenance Ratings Fundamentals, Chapter 5 (NAVEDTRA 12010) • Aviation Machinist's Mate 3&2, Chapter 2 (NAVEDTRA 12300) • Naval Aviation Maintenance Program (NAMP), Volume III, Chapter 8 (OPNAVINST 4790.2) • Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 13 (OPNAVINST 4790.2) • Applicable aircraft tool control manual
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about tool control inventories and tool identification marks. Questions will be of a general nature or specific to a type of equipment. You will also be questioned on procedures for inspecting tool containers and on searching for missing tools. In addition, you will be questioned on preparing missing and broken tool reports.

Advancement Handbook for AD3

General AD <i>Skill Area</i>	Maintenance Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Initiate an unscheduled maintenance action
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for using maintenance manuals, illustrated parts breakdowns (IPBs), supply catalogs, and other documentation tools to identify parts and assemblies • Definitions of maintenance action form (MAF) data elements • Supply system requirements for returns • Tool control procedures
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 5 (OPNAVINST 4790.2) • Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 13 (OPNAVINST 4790.2) • Aviation Rating Fundamentals, Chapter 3 (NAVEDTRA 12010)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on initiating a maintenance action. Questions will be of a general nature or specific to a type of maintenance action. You will be questioned on MAF preparation.

Advancement Handbook for AD3

General AD <i>Skill Area</i>	Aircraft Fuel Systems Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain aircraft fuel systems and components of aircraft fuel systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Aircraft fuel system operation • Procedures for performing functional checks on aircraft fuel systems • Procedures for troubleshooting aircraft fuel systems • Inspection requirements for the inspection of aircraft fuel systems for leaks, wear, and damage • Aircraft fuel system component operation • Troubleshooting concepts for components of aircraft fuel systems (other than engine) • Cleaning and inspecting requirements for components of aircraft fuel systems (other than engine) • Procedures for taking fuel samples • Inspection requirements for the inspection of fuel samples for contamination • Procedures for disassembling components of aircraft fuel systems (other than engine) • Procedures for replacing components of aircraft fuel systems (other than engine) • Cleaning and lubrication requirements for components of in-flight refueling (IFR) systems • Inspection requirements for the inspection of components of IFR systems for leaks, wear, and damage • Identification of types of aircraft fuel cells • Aircraft fuel cell operation • Procedures for removing aircraft fuel cells • Procedures for installing aircraft fuel cells • Procedures for troubleshooting aircraft fuel cells for leaks

	<ul style="list-style-type: none"> • Inspection requirements for the inspection of aircraft fuel cells for leaks, wear, and damage • Aircraft fuel dump system operation • Procedures for troubleshooting components of aircraft fuel dump systems • Inspection requirements for the inspection of components of the aircraft fuel dump systems for leaks, wear, and damage • Procedures for replacing components of the aircraft fuel dump systems • Aircraft fuel transfer system operation • Procedures for performing functional checks on the aircraft fuel transfer systems • Troubleshooting concepts for components of aircraft fuel transfer systems • Inspection requirements for the inspection of components of the aircraft fuel transfer systems for leaks, wear, and damage • Procedures for replacing components of the aircraft fuel transfer systems
<p><i>References</i> you should study to gain the knowledge you need to perform this skill:</p>	<ul style="list-style-type: none"> • Aviation Maintenance Ratings Fundamentals, Chapter 5 (NAVEDTRA 12010) • Aviation Machinist's Mate 3&2, Chapter 4 (NAVEDTRA 12300) • Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 3 (OPNAVINST 4790.2) • Aircraft Fuel Cells and Tanks (NAVAIR 01-1A-35) • Applicable maintenance instruction manuals (MIMs)

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about aircraft fuel systems and questions about aircraft fuel systems operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on aircraft fuel systems, on IFR systems, on fuel dump systems and on fuel transfer systems. You will be questioned on functional checks, troubleshooting, inspection, cleaning, lubrication, component disassembly, component assembly, and component installation for aircraft fuel systems, IFR systems, fuel dump systems, and fuel transfer systems. In addition, you will be questioned on fuel cells to include types, cell operation, cell removal and installation as well as cell troubleshooting and inspection. Further, you will be questioned on fuel sampling and fuel inspection.</p>
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Advancement Handbook for AD3

General AD <i>Skill Area</i>	Propeller Systems
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain propellers and propeller components
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Cleaning and lubrication requirements for components of propeller systems • Inspection requirements for the inspection of components of propeller systems for leaks, wear, and damage • Procedures for blending nicks and scratches in propeller blades • Procedures for removing propellers • Procedures for replacing components of propeller systems • Propeller installation requirements • Procedures for servicing propeller systems • Propeller balancing requirements • Procedures for synchronizing engines to propellers
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 8 (NAVEDTRA 12300)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about propeller system operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on component functions, operation and inspection as well as on procedures for servicing, replacing and cleaning components of propellers. You will also be questioned on the procedures for balancing and synchronizing propellers.

Part 2

Advancement Handbook for AD2

Advancement Handbook for AD2

General AD <i>Skill Area</i>	General Power Plant Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform troubleshooting checks on aircraft engines
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for troubleshooting: <ul style="list-style-type: none"> - Engine mechanical malfunctions - Engine low-power - Engine overspeed - Turbine inlet temperature (TIT) - Engine gas temperature (EGT) - Engine oil systems - Engine fuel systems
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 16 (OPNAVINST 4790.2) • Aviation Machinist's Mate 3&2, Chapter 9 (NAVEDTRA 12300) • Applicable maintenance instruction manuals (MIMs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about troubleshooting procedures on aircraft engines. Questions will be of a general nature or specific to a type of equipment. You will be questioned on troubleshooting mechanical malfunctions, low-power, overspeed, TIT, EGT, oil systems, and fuel systems.

Advancement Handbook for AD2

General AD <i>Skill Area</i>	General Power Plant Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform functional checks on aircraft engines
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for performing functional checks on: <ul style="list-style-type: none"> - Aircraft engines - Engine oil systems - Engine fuel systems - Engine intake systems - Engine anti-ice systems - Engine exhaust systems - Engine reduction gearboxes - Engine accessory gearboxes
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2 , Chapters 1 through 10 (NAVEDTRA 12300) • Applicable maintenance instruction manuals (MIMs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing functional checks on aircraft engine systems. Questions will be of a general nature or specific to a type of equipment.

Advancement Handbook for AD2

General AD <i>Skill Area</i>	Engine Component Inspection and Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain engine afterburners
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for performing engine scheduling (trim engine) • Procedures for replacing engine diffuser cases • Procedures for replacing engine exhaust flame holders • Replacement procedures for engine afterburners • Engine afterburner disassembly requirements • Replacement procedures for components of engine afterburner systems • Assembly requirements of engine afterburners • Procedures for rigging engine afterburner systems • Troubleshooting concepts for: <ul style="list-style-type: none"> - Engine afterburners - Components of engine afterburner systems
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 1, 9, and 10 (NAVEDTRA 12300) • Applicable maintenance instruction manuals (MIMs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about engine afterburner maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on engine scheduling, on component replacement, on troubleshooting concepts, and on rigging procedures.

Advancement Handbook for AD2

General AD <i>Skill Area</i>	Helicopter Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain helicopter rotary heads, blade tracking, and flight control systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for performing functional checks on rotary head assemblies • Troubleshooting concepts for components of rotary head assemblies • Rigging and adjusting requirements for rotary head assemblies • Procedures for performing functional checks on helicopter blade tracking systems • Troubleshooting concepts for components of helicopter blade tracking systems • Rigging and adjusting requirements for helicopter blade tracking systems • Procedures for performing functional checks on helicopter flight control systems • Troubleshooting concepts for helicopter flight control systems • Rigging and adjusting requirements for helicopter flight control systems
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 7 (NAVEDTRA 12300) • Applicable maintenance instruction manuals (MIMs)

<p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p>	<p>You can expect questions about helicopter rotary head, blade tracking, and flight control systems operation and maintenance. Questions will be of a general nature or specific to a type of equipment. You will be questioned on component functional checks, on troubleshooting, on rigging, and on adjusting rotary head, blade tracking, and flight control systems.</p>
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Advancement Handbook for AD2

General AD <i>Skill Area</i>	Aviation Support
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform engine turns
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for performing engine vibration analysis • Procedures for performing low-power aircraft turnups • Procedures for performing high-power aircraft turnups
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 10 (NAVEDTRA 12300) • Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 10 (OPNAVINST 4790.2) • Applicable maintenance instruction manuals (MIMs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about engine turnups. Questions will be of a general nature or specific to a type of equipment. You will be questioned on vibration analysis as well as on low- and high-power turnups.

Advancement Handbook for AD2

General AD <i>Skill Area</i>	Maintenance Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain reports
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for documenting incorporation of technical directives • Procedures for reviewing maintenance data reports (MDRs) • Requirements for correcting MDRs • Procedures for reviewing oil analysis reports • Procedures for performing aircraft inventory, acceptance, and transfer inspections • Requirements for preparing the following special reports: <ul style="list-style-type: none"> - Technical publication deficiency report (TPDR) - Hazardous material report (HMR) - Quality deficiency report (QDR)
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Maintenance Ratings Fundamentals, Chapters 2 and 5, (NAVEDTRA 12010) • Naval Aviation Maintenance Program (NAMP), Volume I, Chapters 12, 13, and 15 (OPNAVINST 4790.2)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about different reports and procedures. Questions will be of a general nature or specific to a type of report. You will be questioned on TPDRs, HMRs, QDRs, MDRs, oil analysis reports as well as on acceptance and transfer inspections.

Advancement Handbook for AD2

General AD <i>Skill Area</i>	Propeller Systems
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain propeller systems
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for performing functional checks on propeller systems • Troubleshooting concepts for propeller system components • Procedures for rigging and adjusting components of propeller systems
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Machinist's Mate 3&2, Chapter 8 (NAVEDTRA 12300) • Applicable maintenance instruction manuals (MIMs)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about propeller system operation. Questions will be of a general nature or specific to a type of equipment. You will be questioned on functional checks, troubleshooting, rigging and adjusting.

Part 3

Advancement Handbook for AD1

Advancement Handbook for AD1

General AD <i>Skill Area</i>	Maintenance Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain work center reports and programs
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for monitoring work center support equipment (SE) operator qualification programs • SE misuse/abuse investigation requirements • Procedures for preparing SE misuse/abuse reports • Procedures for reviewing SE misuse/abuse reports • Procedures for investigating aircraft damage (bird strike, battle, and so forth) • Requirements for conducting missing tool search
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Aviation Maintenance Ratings Fundamentals, Chapter 5 (NAVEDTRA 12010-B) • Aviation Machinist's Mate 3&2, Chapter 2 (NAVEDTRA 12300) • Naval Aviation Maintenance Program (NAMP), Volume I, Chapters 10, 14, 15, and 16 (OPNAVINST 4790.2) • Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 13 (OPNAVINST 4790.2)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about work center reports and programs. Questions will be of a general nature or specific to a type of report or program. You will be questioned on the SE operator program, on misuse/abuse reports, on aircraft damage, and on missing tool search.

Advancement Handbook for AD1

General Ad <i>Skill Area</i>	Maintenance Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Performing quality assurance (QA) inspections
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for performing in-process QA inspections • Final QA inspection requirements
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Naval Aviation Maintenance Program (NAMP), Volume I, Chapters 12, 14, and 15 (OPNAVINST 4790.2) • Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 8 (OPNAVINST 4790.2) • Aviation Maintenance Ratings Fundamentals, Chapter 1 (NAVEDTRA 12010)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the quality assurance inspection procedures. Questions will be of a general nature or specific to a type of equipment.

Part 4

Advancement Handbook for ADC

Advancement Handbook for ADC

General AD <i>Skill Area</i>	Maintenance Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain aircraft logbooks
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for verifying technical directives (TDs) documentation in aircraft logbooks • Requirements for preparing, reviewing and updating aircraft history records • Requirements for preparing, reviewing, and updating equipment history records
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 13 (OPNAVINST 4790.2) • Aviation Maintenance Ratings Fundamentals, Chapter 2 (NAVEDTRA 12010)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about logbook maintenance. Questions may be of a general nature or specific to a type of entry. You will be questioned on TD documentation as well as on preparing, reviewing and updating aircraft and equipment history records.

Advancement Handbook for ADC

General AD <i>Skill Area</i>	Maintenance Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain an aircraft discrepancy book (ADB)
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Requirements for updating ADB • Procedures for assigning aircraft to missions • Requirements for certifying aircraft safe for flight • Procedures for approving aircraft maintenance actions
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 12 (OPNAVINST 4790.2)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about ADB maintenance requirements. You will be questioned on updating the ADB, on assigning aircraft, on certifying aircraft safe for flight, and on approving maintenance actions.

Advancement Handbook for ADC

General AD <i>Skill Area</i>	Maintenance Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Carry out maintenance control operations
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Procedures for reviewing QDRs • Procedures for preparing, reviewing, and updating aircraft status reports • Procedures for preparing, reviewing, and updating equipment status reports • Requirements for reviewing subsystem capability impact reports (SCIR) • Requirements for reviewing request for technical assistance • Evaluation procedures for material conditions for combat readiness (mission capable status) • Procedures for reviewing aviation consolidated allowance lists (AVCALs) • Procedures for scheduling aircraft for maintenance • Procedures for scheduling aircraft inspections
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 12 (OPNAVINST 4790.2)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about maintenance control operation. Questions will be of a general nature or specific to a type of procedure. You will be questioned on QDRs, on aircraft status reports, on equipment status reports, on SCIR, on technical assistance, on mission capability, and on AVCAL. You will also be questioned on scheduling aircraft for maintenance and inspections.

Appendix A

References Used in This Advancement Handbook

Rating	Short Title	Long Title	Chapters/ Paragraphs	Stocking Point
AD3	NAVAIR 01-1A-35	Aircraft Fuel Cells and Tanks		Note 1
	NAVAIR 01-1A-509	Aircraft Weapons Systems Cleaning and Corrosion Control	Chapters 3, 4, & 9	Note 1
		Applicable aircraft tool control manual		Note 1
		Applicable maintenance instruction manuals (MIMs)		Note 1
		Applicable maintenance requirements cards (MRCs)		Note 1
	NAVEDTRA 12300	Aviation Machinist's Mate 3&2	Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, & 10	Note 1
	NAVEDTRA 12010	Aviation Maintenance Ratings Fundamentals	Chapters 4 & 5	Note 1
	NAVAIR 17-15-50.1	Joint Oil Analysis Program Manual	Chapters 1, 2, 3, & 4	Note 1
		Local hazardous material (HAZMAT) instructions		Note 2
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP), Volume I	Chapters 4, 5, 10, 11, 12, 13, 14, 15, & 16	Note 3
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP), Volume III	Chapter 8	Note 3
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP), Volume V	Chapters 3, 10, 13, & 20	Note 3

AD3 (Cont)	OPNAVINST 5100.19	Navy Occupational Safety and Health	Chapter 3	Note 3
	NAVAIR 15-01-500	Preservation of Naval Aircraft	Chapters 1, 2, 3, & 4	Note 1
AD2		Applicable maintenance instruction manuals (MIMs)		
	NAVEDTRA 12300	Aviation Machinist's Mate 3&2	Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, & 10	Note 1
	NAVEDTRA 12010	Aviation Maintenance Ratings Fundamentals	Chapters 2 & 5	Note 1
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP), Volume I	Chapters 10, 12, 13, 15, & 16	Note 3
AD1	NAVEDTRA 12300	Aviation Machinist's Mate 3&2	Chapter 2	Note 1
	NAVEDTRA 12010	Aviation Maintenance Ratings Fundamentals	Chapters 1 & 5	Note 1
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP), Volume I	Chapters 10, 12, 14, 15, & 16	Note 3
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP), Volume V	Chapters 8 & 13	Note 3
ADC	NAVEDTRA 12010	Aviation Maintenance Ratings Fundamentals	Chapter 2	Note 1
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP), Volume I	Chapters 12 & 13	Note 3

LEGEND:

Note 1– To order, MILSTRIP to NAVICP PHILA (Stk. No. from NAVSUP P2002) or via INTERNET – <http://www.nll.navsup.navy.mil>

Note 2– Obtain from local source

Note 3– INTERNET – <http://neds.nebt.daps.mil/>